L Number	Hits	Search Text	DB	Time stamp
1	1148	laser same (parabola or parabolic)	USPAT; US-PGPUB	2002/05/15 16:15
2	363374	(tube or tubing or catheter).ti,ab,bsum,clm.	USPAT; US-PGPUB	2002/05/15 16:07
3	109	(weld$3 or bond$3 or seal$3 or fuse or fused or fusion or fusion) same (laser same (parabola or parabolic))	USPAT; US-PGPUB	2002/05/15 16:26
4	36	((tube or tubing or catheter).ti,ab,bsum,clm.) and ((weld$3 or bond$3 or seal$3 or fuse or fused or fusion or fusion) same (laser same (parabola or parabolic)))	USPAT; US-PGPUB	2002/05/15 16:10
5	605	laser same (parabola or parabolic)	EPO; JPO; DERWENT	2002/05/15 16:15
6	55	(weld$3 or bond$3 or seal$3 or fuse or fused or fusion or fusion) same (laser same (parabola or parabolic))	EPO; JPO; DERWENT	2002/05/15 16:22
7	297	(156/272.8).CCLS.	USPAT; US-PGPUB	2002/05/15 16:23
8	237	(156/275.1).CCLS.	USPAT; US-PGPUB	2002/05/15 16:24
9	23099	parabola or parabolic	USPAT; US-PGPUB	2002/05/15 16:24
10	6	((156/272.8).CCLS.) and (parabola or parabolic)	USPAT; US-PGPUB	2002/05/15 16:25
11	30	((tube or tubing or catheter).ti,ab,bsum,clm.) and ((156/272.8).CCLS.)	USPAT; US-PGPUB	2002/05/15 16:25
13	1194022	(weld$3 or bond$3 or seal$3 or fuse or fused or fusion or fusion)	USPAT; US-PGPUB	2002/05/15 16:29
14	22	(((tube or tubing or catheter).ti,ab,bsum,clm.) and ((156/272.8).CCLS.)) and ((weld$3 or bond$3 or seal$3 or fuse or fused or fusion or fusion))	USPAT; US-PGPUB	2002/05/15 16:34
15	17	("3528867" | "3528869" | "3560291" | "3769117" | "3953706" | "3974016" | "4069080" | "4251305" | "4276874" | "4550238" | "4733047" | "4777951" | "4941877" | "4950239" | "4958634" | "5108415" | "5279693").PN.	USPAT	2002/05/15 16:31
22	1	((156/275.1).CCLS.) and (laser same (parabola or parabolic))	USPAT; US-PGPUB	2002/05/15 16:34

DOCUMENT-IDENTIFIER: US 5675155 A
TITLE: Multicapillary fluorescent detection system

---------- KWIC ---------

DEPR:
The system used to perform the experiments is shown in general layout form in FIG. 7. The output of a red diode **laser** 200 (639 nm, 1.3 mW, Model TSX-1, purchased from Uniphase) was directed through a **laser** line filter 210 (640 nm, 7 nm FWHM (full width, half maximum) supplied by Barr Associates) and was reflected at 90.degree. off a small mirror 230 (Model M0540V, supplied by General Scanning, Inc.) which was fastened to the limited rotation drive shaft of a galvanometer scanner 240 (Model G120DT supplied by General Scanning, Inc.). The beam 235 reflected off the scan mirror was directed through a planoconvex lens (Model 41340 supplied by Oriel, Inc.) and was focused through an aperture 245 in the side of a 1" diameter **parabolic** reflector 250 (Model 1587 supplied by Carley, Inc. of Torrance, Calif.). The beam was focused into the center of any one of eight **fused** silica capillaries (TSP100200 supplied by Polymicro Technologies, Inc. of Phoenix, Ariz.) which were held in a linear array 255 about the focal point of **parabolic** reflector 250. The focused beam passed through the capillary bore and exited the reflector through a second aperture 265.

DOCUMENT-IDENTIFIER: US 4975128 A
TITLE: Method for heat-treating straight bead welded pipes

---------- KWIC ---------

DEPR:
An apparatus for the partial annealing of a straight bead **welded** pipe is shown in FIG. 2. Again, the **welding** seam 2 and the heat affected zone 3 surrounding it generally lie at the top of the pipe. Maximal heat treatment should extend to the **welding** seam 2, the heat affected zone 3 and the additional safety region 4, while the rest of the pipe is annealed free of stress at a low temperature. Due to the high annealing temperatures, the pipe 1 to be annealed is preferably to be contained within a protective gas in order to avoid subsequent corrosion. In the illustrated embodiment the pipe 1 to be annealed is contained inside a quartz glass pipe 5, in which an intermediate space 9 between the two is filled with a protective gas. One or more infrared radiators or **lasers** are disposed above the quartz glass pipe 5 and are provided with focusing reflectors 8 in a housing 7. The focusing reflectors can have a **parabolic** cross section, for example, with infrared radiators in the focal point or focal line thereof. However, other focusing elements, such as infrared pervious or permeable lens systems or the like, can be used. The infrared rays are focused in such a way that they radiate onto and heat the selected region 4 of the pipe 1 to be partially annealed.

DOCUMENT-IDENTIFIER: US 4661236 A
TITLE: Fluid electrode and method of making

---------- KWIC ---------

DEPR:
The source of radiant energy 28 may be implemented in various ways. The preferred glass for inner tube 10, made by Schott and discussed above, is highly absorbent at a wavelength of 1.06 microns. Tungsten filament bulbs radiate a large amount of energy in this range. In the preferred embodiment, source 28 is made of three tungsten lamps equally spaced around the electrode assembly with **parabolic** reflectors focused at the point where the **seal** is to be formed. A YAG **laser** will also serve as an energy source for radiation of this wavelength. Other sources will be apparent to those in the art.

CLIPPEDIMAGE= JP406167629A
PAT-NO: JP406167629A
DOCUMENT-IDENTIFIER: JP 06167629 A
TITLE: SPLICER FOR FUSION-SPLICING OPTICAL FIBER WITH LASER
PUBN-DATE: June 14, 1994
INVENTOR-INFORMATION:
NAME
WYSOCKI, JOSEPH A
VINCE, MICHAEL R
MCCAHON, STEPHEN W
KENNA, JOHN T
ASSIGNEE-INFORMATION:
NAME COUNTRY
HUGHES AIRCRAFT CO N/A
APPL-NO: JP05155873
APPL-DATE: June 25, 1993
INT-CL_(IPC): G02B006/255; B23K026/00
ABSTRACT:
PURPOSE: To form a high quality splice reduced in light loss and the lowering of strength by providing a parabolic mirror having the axis of a parabolic face matched with the axis of a fixed optical fiber.

CONSTITUTION: The **parabolic** mirror 34 having the reflecting surface 36 of the **parabolic** face is arranged so that the axis is matched with the axis 26 of a **laser** beam. The first optical fiber 40 from which a buffer layer 16 is removed is held by a clamp so that the axis is matched with the axis 26 of the beam. The second optical fiber 44 is held by a second clamp 46 so that the axis is matched with the axis 26 of the beam. The end part of the first optical fiber is slightly brought into contact with the end part 64 of the second optical fiber 44 at the focus of the mirror 34 and they are fixed so that they face each other. Then, the pulse of a **laser** is radiated on a focal face 38 by opening the shutter of a **laser** power source for scheduled time. The intensity of the pulse is controlled so that it becomes minimum power required for **fusion**- splicing the end parts 62 and 64.

DOCUMENT-IDENTIFIER: US 5922443 A
TITLE: Polymeric article, such as a medical catheter, and method for making the same

---------- KWIC ---------

BSPR:
Another prior art patent, U.S. Pat. No. 4,960,410, describes a two piece construction having a helix cut through the wall of the distal tip of the catheter to provide flexibility and pushability. The portion is then sheathed with a thin softer tube to complete the catheter wall. One drawback with this catheter and method for making such a **catheter is that cutting the helix, sheathing and bonding the sheath to the inner catheter** is both laborious and costly. In addition, although this construction provides a pliable or flexible distal zone, it does not provide a softer end or tip portion that is atraumatic to the blood vessel lining.

DOCUMENT-IDENTIFIER: US 5891137 A
TITLE: Catheter system having a tip with fixation means

---------- KWIC ---------

DEPR:
The catheter system has at least one temperature sensor 18 and ultrasonic imaging capabilities. In order to enhance the ablation positioning of said ablation catheter, the electrode is encoded with at least one marker 19 which is visible to ultrasonic energy. Such markers 19 are provided in the form of encapsulated air bubbles. Several markers 19 are placed in the proximity of the electrodes 14 or 15 in a way so that the exact location of the distal section 13 is visible to an external ultrasonic energy. By way of example, the bubble in a marker can be formed by introducing air by a syringe (not shown) penetrating the wall of the substrate **sheath of said catheter sheath and thereafter is sealed** by epoxy.

DOCUMENT-IDENTIFIER: US 5843027 A
TITLE: Balloon sheath

---------- KWIC ---------

DEPR:
Alternatively, the sheath 40 can have an axial length of greater than the axial length of the underlying balloon. Such sheaths can be secured to the catheter shaft at the proximal side and/or the distal side of the balloon. **Bonding of the sheath to the catheter** shaft can be accomplished by any of the techniques discussed above, as well as by shrinking proximal and distal necks on the sheath such as by the application of heat.

DOCUMENT-IDENTIFIER: US 5078702 A
TITLE: Soft tip catheters

---------- KWIC ---------

BSPR:
Another type of catheter construction is disclosed in U.S. Pat. No. 4,636,346 issued to Gold et al. This catheter includes three sheaths, and inner sheath formed from polytetrflouroethylene (PTFE), an intermediate sheath formed from a rigid polymeric material and an outer sheath formed from a more flexible polymeric material. In order to form a more flexible tip portion the intermediate sheath is removed from the distal portion of the catheter. The disadvantage with this **catheter design is that the PTFE inner sheath does not form an adequate bond** with the outer sheath, thus forming a weak joint which may fail.

DOCUMENT-IDENTIFIER: US 5030210 A
TITLE: Catheter valve assembly

---------- KWIC ---------

CLPV:
(a) the said non-slip engagement of the internal surface of said **sheath with the outer surface of said catheter tubular body being a heat bond**.

PGPUB-DOCUMENT-NUMBER: 20020032406
DOCUMENT-IDENTIFIER: US 20020032406 A1
TITLE: Catheter for tissue dilatation and drug delivery

---------- KWIC ---------

DETX:
[0067] FIG. 13 shows the distal end region of an alternative embodiment intraluminal treatment device 88. The device includes a flexible **catheter 90, and a delivery sheath in the form of a membrane 92 fused to the catheter** at proximal and distal neck regions 94 and 96. Suitable membrane materials include ePTFE, collagen, silicone, and polyurethane. The catheter has a flexible distal tip 98 that protrudes beyond membrane 92. The membrane performs the same function as delivery sheath 22, but is somewhat different in structure, in that it has a natural porosity. Accordingly there is no need to form separate pores through the membrane, such as pores 56 in FIG. 2. Just as the diameter of pores 56 is selected to achieve a predetermined perfusion rate at a given fluid pressure, a material with a desired pore size can be selected for membrane 92. The membrane can have the flexibility discussed above in connection with sheath 22. At the same time, certain porous materials (e.g. collagen) lack this degree of elasticity. In such cases, membrane 92 is formed sufficiently thin (thickness up to about 0.002 inches) to achieve the requisite conforming contact with surrounding tissue. Advantages of membrane 92 include the inherent uniformity of the naturally occurring pores and the elimination of the pore-forming step in manufacturing the device. At the same time, a primary advantage of delivery sheath 22 is the ability to confine the pores to a medial region of a sheath. In any event, catheter 90 includes a drug delivery lumen open to a compartment 100 inside the membrane, as indicated at 102. The complete system includes a syringe or other source of the therapeutic agent coupled to the drug delivery lumen at the proximal end of catheter 90.